

# Orthopaedic Surgery

The only specialized practice of its kind in Central California, the Orthopaedic Surgery Department at Children's Hospital Central California performs 1,800 orthopaedic procedures a year.

From infants to young adults, the team treats all aspects of children's orthopaedic needs on an inpatient and outpatient basis. Our board certified pediatric orthopaedic surgeons specialize in the treatment of conditions such as congenital deformities of the upper and lower extremities, spinal disorders, sports-related injuries and neuromuscular diseases.

Children's bones are still developing, and pediatric orthopaedic surgeons know how to accommodate growth while repairing problems. Our orthopaedic surgeons are experts at treating young patients whose growth plates are not yet closed.

Sports injuries are common among children and adolescents. Children's pediatric orthopaedic surgeons have extensive experience in treating young athletes and employ sport-specific treatment to get athletes back to play as soon as possible.

The practice was one of the first in the nation to implement an "urgent clinic" that allots additional time and resources to handle anticipated influxes in pediatrician referrals and unscheduled appointments. These include traumatic injuries from simple falls on the playground to major motor vehicle collisions. Based on experience, the practice developed the concept that they could predict – and therefore better prepare for – increases in patients who require immediate attention.

We also provide pediatric orthopaedic consultations at the Modesto Pediatric Subspecialty Center and the Merced Pediatric Subspecialty Center for children and adolescents in Stanislaus, San Joaquin and Merced Counties.

## Children's Access Center

24/7 access for referring physicians

**(866) 353-KIDS (5437)**

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## Outpatient Referral

Referral forms online at: [www.childrenscentralcal.org/services/medicaloffice/refer](http://www.childrenscentralcal.org/services/medicaloffice/refer)

FAX: (559) 353-8888

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## Orthopaedic Surgery Office Numbers

Main Number: (559) 353-5941

FAX: (559) 353-5945

Physician Line: (559) 353-6000

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Physician Liaison: (559) 353-7229

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## Medical Staff:

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Amazing People. Incredible Care.

# Pediatric Orthopaedic Consultant Reference Guide

Condition	Pre-referral Workup	When to Refer
Extreme Pain, Limping or Non-Ambulation	<ul style="list-style-type: none"> <li>-Clinical history - no fever (?)</li> <li>-Physical exam - localizing the pain</li> <li>- X-rays</li> <li>**Beware septic hip especially in child &lt; 12 yrs w/ hip or non-specific leg/pain or limp &gt; 2 days</li> </ul>	<ul style="list-style-type: none"> <li>-Persistent pain or limp - 48 hours</li> <li>-Abnormal X-ray consistent with fracture or infection</li> <li>-Abnormal labs</li> <li>-Bone scan</li> <li>-Fracture or infection</li> <li>-Any child with limp who appears acutely ill</li> </ul>
Acute Fracture at Any Anatomic Site	<ul style="list-style-type: none"> <li>-Clinical history: Patient usually presents w/ discrete hx of trauma and localized bony pain +- deformity</li> <li>-X-rays of the anatomic area of pain (two views) if pain can be localized</li> <li>-If skeletal fx visualized on X-ray then definitive care by PCP or referral if X-rays negative then:</li> <li>-Labs: ESR, CRP,CBC +- Blood Culture</li> <li>-Consider bone scan if labs abnormal and plain X-rays not diagnostic</li> </ul>	<ul style="list-style-type: none"> <li>-All fractures that are beyond comfort level of treating physician should be referred for acute care</li> <li>-The degree of acceptable angulation or step off varies by fx site and patient age. As a general rule, fractures w/ &gt; 15-20 degrees of angulation are likely to require reduction or correction of their deformity. Forearm, femur and elbow fractures are the more common and challenging fractures.</li> </ul>
Hip Pain (or knee pain referred from hip) "Possible Septic Hip"	<ul style="list-style-type: none"> <li>-Clinical history</li> <li>-Physical exam - focusing on range of motion of the hip (stiffness or loss of internal rotation)</li> <li>-Labs CBC, CRP, ESR if there is hip stiffness</li> <li>-AP/frog lateral of hips/pelvis</li> <li>-Hip ultrasound if hip is stiff or labs are abnormal</li> <li>-Total body scan if ultrasound is negative, labs are abnormal and hip is stiff on exam</li> </ul>	<ul style="list-style-type: none"> <li>-Any child with "hip" pain &gt; 48 hours or if child is acutely ill or if labs/radiology are abnormal</li> </ul>

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Slipped Capital Femoral Epiphysis (SCFE). Severe Hip Pain Physeal Fracture of Femoral Head.	<ul style="list-style-type: none"> <li>-Clinical history - hip pain or referred knee pain in well adolescent</li> <li>-Physical exam - severe pain/acute loss of hip internal rotation</li> <li>-Plain X-rays - demonstrate either obvious physeal fracture of femoral head or chronic very subtle "slip" -- difficult to determine slip, requiring orthopaedic evaluation</li> </ul>	<ul style="list-style-type: none"> <li>-Refer all children between ages 6-12 with persistent hip pain and painful passive ROM (especially internal rotation) as an URGENT referral because of the need to avoid severely displaced fracture/dislocations of the hip. Referral of children with a radiographic diagnosis should occur within 24 hours. Treatment is URGENT operative fixation. Patients should be on strict non-weight bearing!</li> </ul>
Scoliosis or Spinal Curvation	<ul style="list-style-type: none"> <li>-Clinical history - significant if other diseases associated with scoliosis or neurologic deficits</li> <li>-Physical exam - obtain angle of trunk rotation (scoliometer reading if possible). Also spine flexibility, tenderness and neurologic function.</li> <li>-Radiographs - upright AP/lateral thoracic-lumbar spine on 36" cassettes</li> </ul>	<ul style="list-style-type: none"> <li>-Refer all children with a scoliosis <math>\geq 20</math> degrees (X-ray) or scoliometer <math>&gt; 7</math> degrees. As a general rule, patients receive bracing treatment for significant progression in young patients with slow curves (20-40 degrees) and surgical treatment for curves <math>&gt; 50</math> degrees.</li> </ul>
Developmental (congenital) Dislocation of the Hip (DDH) Hip Dysplasia	<ul style="list-style-type: none"> <li>-Clinical history - high risk family hx includes breech delivery in mother with/without DDH. Note: Conditions associated with DDH are prior family hx, breech presentation, torticollis and feet and knee deformities.</li> <li>-Physical exam - infant hip exam is difficult and requires pediatric orthopaedic expertise. Hip "clunk" can be very significant, exam findings are very subtle. A hip "click" is not a sign of pathology. Hips and knees click in infants when soft tissues snap over young prominences. These are physiologic "clicks."</li> <li>- Plain X-rays - AP of pelvis and exam are diagnostic for a pediatric orthopaedist in patients <math>&gt; 2-3</math> months. Ultrasound also helpful in younger patients (6 months).</li> </ul>	<ul style="list-style-type: none"> <li>-All infants with hip clunk</li> <li>-Patient with family history of DDH, breech presentation and abnormal ultrasound or X-ray should be referred</li> <li>-Breech presenting in utero or a positive family history of hip dysplasia are absolute indications for a radiograph (AP pelvis) around 3-4 months of age</li> </ul>

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Bone Infection or Osteomyelitis	<ul style="list-style-type: none"><li>-Clinic history-pain &gt; 48 hours - no hx of trauma</li><li>-Physical exam - local osseous tenderness</li><li>-Labs: CBC, ESR, CRP, WBC</li><li>-X-rays - A/P and lateral plain films</li><li>-If labs consistent w/ infection, consider total body scan</li></ul>	<ul style="list-style-type: none"><li>-All cases with pain, abnormal labs or abnormal bone scan</li><li>-Total body scan is an excellent screening tool in young children (&lt;10 yrs) who may represent a diagnostic challenge</li></ul>
Legg Perthes Disease Legg Calves Perthes Perthes Disease	<p>Clinical history: Perthes is an idiopathic avascular necrosis of one or both (bilateral) hips, typically ages 4-10. Pain-free limp or moderate pain with activity is often seen.</p> <p>Physical exam: loss of motion (internal rotation) is an important finding</p> <p>Radiographs: plain X-rays are typically diagnostic; AP/Frog pelvis</p>	<ul style="list-style-type: none"><li>-All patients with Perthes or consideration of Perthes disease should be evaluated by an orthopaedist. Plain X-rays are recommended prior to referral.</li></ul>

# Pediatric Orthopaedic Consultant Reference Guide

## Insurance Plans\*

Aetna EPO/HMO/PPO

AllCare IPA

Bakersfield Family Medical Center/ Heritage Physician Network

Blue Cross HMO/ Prudent Buyer PPO/ Healthy Families EPO

Blue Cross Medi-Cal/ Healthy Families HMO

Blue Shield HMO/ PPO/ Healthy Families

Capp Care (Beachstreet)

Catholic Healthcare West-Bakersfield

CCS – California Children's Services

Central California Alliance for Health

Central Valley Medical Group CVMG

Choice Care

Cigna/ Greatwest

Delano Regional Medical Group

EHS IPA (Blue Cross Managed Medi-Cal Patients/Healthy Families)

Emmanuel Employee Benefit Plan

First Health/ CCN

Foundation HealthCare Administrators/ California Foundation for Medical Care

GemCare IPA/ Managed Care Systems

Health Net HMO/ PPO/ Healthy Families/ Healthy Kids

Health Net Medi-Cal / CalViva

Health Plan San Joaquin Medi-Cal/ Healthy Families

Hill Physician Medical Group

Interplan

Kaiser HMO/ Healthy Families/ Medi-Cal

Kern Health Systems Medi-Cal/ Healthy Families

Key /Mosaic Medical Group IPA

LaSalle IPA (Blue Cross Managed Medi-Cal)

Medicare

MediCal – California State

MedCore Medical Group

Multiplan/ PHCS

Sante IPA

Sutter Gould Medical Foundation

Sutter Hospital System (Modesto Memorial, Memorial Los Banos, Sutter Tracy)

TriWest (Formally TRICARE/CHAMPUS)

United HealthCare /PacifiCare

Universal Care

\* Contracted Status subject to change. If you have questions or to verify coverage please call 559.353.8800/888.824.5439